REMARKS

The Office Action and the cited and applied references have been carefully studied. No claim is allowed. Claims 4-9, 16-18, and 21-27 presently appear in this application and define patentable subject matter warranting their allowance. Reconsideration and allowance are hereby respectfully solicited.

Claims 1-9, 14-18 and 21-25 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. The examiner states that the phrase "normal adult animal" renders the claims indefinite and also appears contrary to the disclosed invention as the examples appear to isolate the cells from a very young mouse. This rejection is respectfully traversed.

It is well known in the art that a five week old female mouse is sexually mature, i.e., regarded in the art as a normal adult animal, since external fertilization of even a three week old female mouse to obtain the next generation is possible. Attached hereto for the examiner's consideration are pertinent pages of the reference text, Nagy et al., Manipulating the Mouse Embryo: A Laboratory Manual, 3rd edition, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York, 2003, pages 141, 148 and 149, to show that oocytes of three to six week old mice are generally used as a sexually mature mice for purposes of external fertilization.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Claims 1, 3, 21, 22, 23, and 25 have been rejected under 35 U.S.C. §102(b) as being anticipated by Caplan et al. (U.S. Patent 5,486,359). The examiner states that Caplan teaches a population of mesenchymal cell lines which can differentiate into diverse cell types and further discloses factors that cause such differentiation. This rejection is respectfully traversed.

The cells disclosed by Caplan are primary cultures of human derived normal cells. Caplan does not disclose any established cell line such as recited in the present claims. Particularly in the case of human derived cells, it is known that the properties of cells vary depending on the age, sex, etc., of the humans from which the cells are derived, as discussed in Example 1 of Caplan. It is furthermore well known in the art that establishing a human normal cell line is very difficult.

In contrast to the cells disclosed by Caplan, the present invention is directed to a cell line, which is preferably a clonal cell line as recited in claim 26. Because an established cell line has constant biological properties, it can be used in screening methods, such as for screening drugs. Accordingly, Caplan cannot anticipate the present invention.

In addition, it should be noted that claim 27 is directed to a specifically characterized and deposited cell line.

Clearly, claim 27 and claims dependent therefrom cannot be anticipated from a general disclosure in Caplan of mesenchymal cells.

Reconsideration and withdrawal of the rejection are therefore respectfully requested.

Claims 1-5 and 23-25 have been rejected under 35 U.S.C. §102(b) as being anticipated by, or in the alternative, under 35 U.S.C. §102(a) as being obvious over Grigoriadis et al. Claims 6-9 and 14-22 have also been rejected under 35 U.S.C. §103(a) as being unpatentable over Grigoriadis. The examiner states that Grigoriadis teaches a mesenchymal cell line which can differentiate into diverse cell types and further discloses factors which cause such differentiation. The examiner asserts that the reference anticipates the claimed subject matter by stating that the source of the cells may be relevant but it however does not appear to the examiner that the cells *per se* are different despite the differences in source. It is the examiner's position that it would have been obvious at the time the invention was made to use the cell of Grigoriadis in an assay for compounds which would cause differentiation of the cells and putting the cells in a kit to run said assay. These rejections are respectfully traversed.

Unfortunately, applicant is unable to conduct side by side comparative tests with the cell line of Grigoriadis.

However, applicant emphasizes that the source of the cells, adult vs. fetus, is quite relevant and distinguishes the present claims from Grigoriadis. What may be present in the fetus may not be present in the adult as an organism ages. The Board of Appeals (1966) held in *Ex parte Cyba* 155 USPQ 757 that "In order that a rejection based upon inherency may be sustained such inherency must be certain". Clearly, there is no certainty that the presently claimed cell derived from a normal adult animal is present in a fetus; rather, it is only speculated. Furthermore, the present specification at page 9 defines the term "normal adult" as excluding embryo-derived cells, tumor cells and neonate animal-derived cells. Thus, Grigoriadis cannot anticipate the presently claimed invention as such inherency cannot be certain. Accordingly, this part of the rejection under §102(b) must fall.

With regard to the obviousness rejections under §103(a), the present invention is patentable for the reason that cells derived from a "normal adult" are different from cells derived from a fetus as discussed above in the §102(b) anticipation rejection. As evidence that the presently claimed cell line derived from an adult animal is different from an embryonic or fetal cell line, since applicants are unable to perform a side-by-side comparative test, attached hereto is a new declaration executed by the inventor Hidetomo KITAMURA which shows that the preferred CL-1 cell line (FERM BP-5823) according

to the present invention differentiates to chondrocytes (cartilage formation) in the presence of Compound A, a chondrogenic promoter, in contrast to the ATDC5 embryonic carcinoma cell line obtained from ATCC and widely used in the art as a chondrocyte precursor for studying chondrocyte differentiation and in contrast to the C3H10T1/2 mouse embryonic cell line also obtained from ATCC and widely used in the art as a multipotent precursor in studying chondrocyte, myocyte, osteoblast and adipocyte differentiation. Compound A is a chondrogenic compound disclosed on page 17 of EP1156037 A1, a copy of which was submitted with the amendment filed March 10, 2003. Atsumi et al., Cell Diff. Develop. 30:109-116 (1990), and Takeichi et al., Develop. Biol. 87:340-350 (1981), copies of which were submitted with the amendment filed March 10, 2003, describe the ATDC5 cell line. Catherine et al., Cancer Res. 33:3231-3238 (1973), Taylor et al., Cell 17(4):771-779 (1979), and Konieczny et al., Cell 38:791-800 (1984), copies of which are attached hereto, describe the C3H10T1/2 cell line.

The new declaration attached hereto also clearly shows the difference between the RCJ 3.1 fetal cells of Grigoriadis, which requires the presence of dexamethasone for differentiation to adipocytes and chondrocytes, and the cell line derived from a normal adult animal (as claimed in the present invention), which

does not require the presence of dexamethasone to differentiate into adipocytes and chondrocytes.

It should be further emphasized that nothing disclosed, taught or suggested in Grigoriadis would lead one of ordinary skill in the art to the specific cell line claimed in claim 27 and claims dependent therefrom.

Accordingly, Grigoriadis cannot anticipate or make obvious the presently claimed invention. Reconsideration and withdrawal of the rejection are therefore respectfully requested.

In view of the above, the claims comply with 35 U.S.C. §112 and define patentable subject matter warranting their allowance. Favorable consideration and early allowance are earnestly urged.

Respectfully submitted,

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